

Group I, claims 1-21 and 24, drawn to a method of conferring resistance to protoporphyrinogen oxidase-inhibiting herbicides upon plants or plant cells; DNA encoding a protein having protoporphyrinogen oxidase activity, said DNA hybridizing to a nucleic acid sequence homologous to nucleic acid encoding SEQ ID NOs: 1, 2, or 3, or said DNA encoding a protein in which Val 13 of said SEQ ID NOs is replaced with another amino acid, and said DNA fragment having the ability to confer resistance to protoporphyrinogen-oxidase inhibiting herbicides to plant or algal cells expressing it.

Group II, claims 22 and 23, drawn to a DNA isolated from Chlamydomonas and encoding a protein, SEQ ID NO: 4, having protoporphyrinogen oxidase activity, and wherein a nucleotide in the sequence encoding SEQ ID NO: 4, guanine at position 37, is replaced with another nucleotide.

Group III, claims 25-40, drawn to a microorganism harboring a plasmid comprising a DNA encoding a protein having protoporphyrinogen oxidase activity and having the ability to confer resistance to protoporphyrinogen-oxidase inhibiting herbicides; a method of evaluation the inhibitory effect of a compound on protoporphyrinogen oxidase, comprising culturing in the presence of a test compound microorganisms sensitive and resistant to protoporphyrinogen inhibitors.

Applicants respectfully traverse the Examiner's restriction requirement and application of unity of invention.

All of the claims as presently recited are based upon a single general inventive concept under PCT Rule 13.1. The PCT administrative authority has already considered the present invention to possess unity, and to directly contest this consideration by the PCT administrative authority is improper. The fact that the species DNAs contain different patentable nucleotide sequences, does not mean that the DNAs are of a different general inventive concept.

Particularly, Applicants respectfully request reconsideration and withdrawal to at least the restriction directed to Group I and Group II. MPEP § 1850A (see page 1800-1847) states as follows:

"Unity of invention has to be considered in the first place only in relation to the independent claims in an international application and not the dependent claims." (emphasis added)

Accordingly, under the PCT administrative instructions set forth in the MPEP, it is improper in a Restriction Requirement to group separately, dependent claims from which the dependent claims are dependent upon. Claim 22 is dependent on Claim 20 (which is then dependent on Claim 15), but is strangely assigned

to Group II whereas Claims 15 and 20 are assigned to Group I. Claims 15 and 22 are also both drawn to DNA fragments, which evidences that Claim 22 is properly dependent upon Claim 20, as set forth in the MPEP. Moreover, the examination procedures MPEP sets forth that Claim 22 is precluded from consideration in Unity of an Invention.

Upon election of a group from the above three groups, the Examiner has also required Applicant to select a single nucleotide sequence and corresponding amino acid sequence for the group. The Examiner asserts that each nucleotide and amino acid sequence is not a member of a single genus of invention, but constitutes an independent and patentably distinct invention. However, the Examiner has provided absolutely no basis for the assertion that the specific sequences according to the present invention are independent and patentably distinct. The Examiner's statements are legally insufficient and therefore do not shift the burden of selecting a sequence to the Applicants.

Regardless, Applicants draw the Examiner's attention to the fact that the Commissioner decided *sua sponte* to partially waive 37 C.F.R. § 1.475 and 1.499 et seq. to permit Applicants to claim up to ten (10) nucleotide sequences that do not have the same or corresponding special technical feature. Refer to MPEP

§ 1850 under the heading "Unity of Invention - Nucleotide Sequences" (see MPEP page 1800-49). This is also consistent with the Commissioner's treatment of regular United States applications. See *Examination of Patent Applications Containing Nucleotide Sequences*, 1192 OG 68 (November 19, 1996). Thus, ten independent and distinct nucleotide sequences may acceptably be examined in a single application, whether a regular United States application or a U.S. national phase PCT application, without restriction. Accordingly, Applicants respectfully submit that the Examiner's Restriction Requirement is completely groundless and should be withdrawn.

However, in order to be fully responsive to the Examiner's outstanding Restriction Requirement, Applicants hereby elect, with traverse, Group I, directed to claims 1-21 and 24. In selecting a single nucleotide sequence, Applicants select the nucleotide sequence coding for the amino acid sequence in which Val13 and SEQ ID NO. 1 is replaced by Met. As an amino acid sequence corresponding to the selected nucleotide sequence, Applicants select the amino acid sequence in which Val13 of SEQ ID NO. 1 is replaced by Met. This election is made with traverse.

Favorable action on the merits is respectfully solicited.

Appl. No. 09/331,723

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Craig A. McRobbie (Reg. No. 42,874) at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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